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Inhibitors, Agonists, Screening Libraries

Serotonin Transporter

5-HTT; SERT; SLC6A4

Serotonin Transporters (SERTs) are integral membrane proteins that transport serotonin from synaptic spaces into presynaptic neurons. SERTs function by reuptaking serotonin in the synaptic cleft, effectively terminating the function of serotonin and halting neuronal transmission. Serotonin reuptake is a critical process to prevent overstimulation of nerves.

Serotonin transporter (SERT) regulates extracellular levels of serotonin (5-hydroxytryptamine, 5HT) in the brain by transporting 5HT into neurons and glial cells. The human SERT (hSERT) is the primary target for drugs used in the treatment of emotional disorders, including depression. hSERT belongs to the solute carrier 6 family that includes a bacterial leucine transporter (LeuT), for which a high resolution crystal structure has become available.

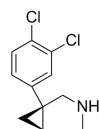
Serotonin Transporter Inhibitors

Amitifadine hydrochloride

(DOV-21947 hydrochloride; EB-1010 hydrochloride)

Cat. No.: HY-18332A

Amitifadine hydrochloride is a serotonin-norepinephrine-dopamine reuptake inhibitor (SNDRI), with IC_{50} s of 12, 23, 96 nM for serotonin, norepinephrine and dopamine in HEK 293 cells, respectively.



H-Cl

Purity: 99.92%

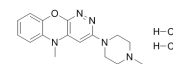
Clinical Data: Phase 3

Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Azaphen (Azafen; Pipofezin hydrochloride; Pipofezin hydrochloride)

Cat. No.: HY-A0022

Pipofezin (Azafen or Azaphen) is a potent inhibitor of the reuptake of serotonin.



Purity: >98%

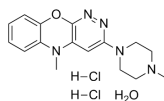
Clinical Data: Launched

Size: 100 mg, 500 mg

Azaphen dihydrochloride monohydrate (Azafen dihydrochloride monohydrate; Pipofezin dihydrochloride monohydrate; ...)

Cat. No.: HY-A0022A

Pipofezin (Azafen or Azaphen) is a potent inhibitor of the reuptake of serotonin.



Purity: 99.60%

Clinical Data: Launched

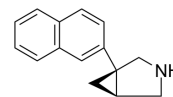
Size: 100 mg, 500 mg

Centanafadine

(EB-1020)

Cat. No.: HY-16736

Centanafadine is dual norepinephrine (NE)/dopamine (DA) transporter inhibitor, also inhibits serotonin transporter, with IC_{50} s of 6 nM, 38 nM and 83 nM for human NE, DA and serotonin transporter, respectively.



Purity: >98%

Clinical Data: No Development Reported

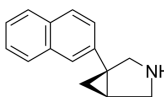
Size: 1 mg, 5 mg

Centanafadine hydrochloride

(EB-1020 hydrochloride)

Cat. No.: HY-16736A

Centanafadine (hydrochloride) is dual norepinephrine (NE)/dopamine (DA) transporter inhibitor, also inhibits serotonin transporter, with IC_{50} s of 6 nM, 38 nM and 83 nM for human NE, DA and serotonin transporter, respectively.



HCl

Purity: 99.93%

Clinical Data: No Development Reported

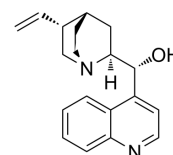
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Cinchonidine

(α -Quinidine)

Cat. No.: HY-N0173

Cinchonidine (α -Quinidine) is a cinchona alkaloid found in Cinchona officinalis and Gongronema latifolium. A building block used in asymmetric synthesis in organic chemistry.



Purity: >98.0%

Clinical Data: No Development Reported

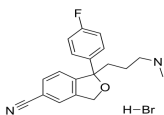
Size: 10 mM × 1 mL, 100 mg

Citalopram hydrobromide

(\pm)-Citalopram hydrobromide; Lu 10-171)

Cat. No.: HY-B1287

Citalopram hydrobromide is an antidepressant drug of the selective serotonin reuptake inhibitor (SSRI) class. It has US FDA approval to treat major depression.



H-Br

Purity: >99.0%

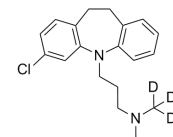
Clinical Data: Launched

Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Clomipramine D3

Cat. No.: HY-B0457AS

Clomipramine D3 is the deuterium labeled Clomipramine. Clomipramine is a serotonin transporter (SERT), norepinephrine transporter (NET) and dopamine transporter (DAT) blocker with K_i of 0.14, 54 and 3 nM, respectively.



Purity: >98%

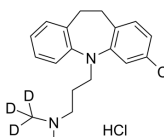
Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Clomipramine D3 hydrochloride

Cat. No.: HY-B0457S

Clomipramine D3 hydrochloride is a deuterium labeled Clomipramine hydrochloride. Clomipramine hydrochloride is a serotonin transporter (SERT), norepinephrine transporter (NET) dopamine transporter (DAT) blocker with K_i of 0.14, 54 and 3 nM, respectively.



HCl

Purity: >98%

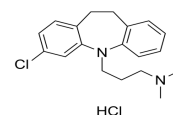
Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Clomipramine hydrochloride

Cat. No.: HY-B0457

Clomipramine hydrochloride is a serotonin transporter (SERT), norepinephrine transporter (NET) and dopamine transporter (DAT) blocker with K_i of 0.14, 54 and 3 nM, respectively.



HCl

Purity: 99.72%

Clinical Data: Launched

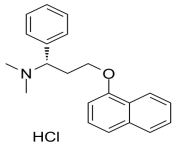
Size: 10 mM × 1 mL, 100 mg, 500 mg

Dapoxetine hydrochloride
(LY-210448 hydrochloride)

Cat. No.: HY-B0304A

Dapoxetine hydrochloride is a short-acting novel selective serotonin reuptake inhibitor (SSRI). Target: SSRI Dapoxetine hydrochloride is a short-acting novel selective serotonin reuptake inhibitor marketed for the treatment of premature ejaculation in men.

Purity: 99.93%
Clinical Data: Launched
Size: 10 mM × 1 mL, 50 mg, 100 mg

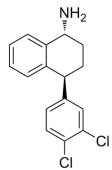


Dasotraline
(SEP 225289)

Cat. No.: HY-12850

Dasotraline is a triple reuptake inhibitor that blocks **dopamine**, **norepinephrine**, and **serotonin** transporters with IC_{50} values of 4, 6, and 11 nM, respectively.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

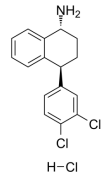


Dasotraline hydrochloride
(SEP-225289 hydrochloride)

Cat. No.: HY-12850A

Dasotraline hydrochloride (SEP-225289 hydrochloride) is a triple reuptake inhibitor that blocks **dopamine**, **norepinephrine**, and **serotonin** transporters with IC_{50} values of 4, 6, and 11 nM, respectively.

Purity: 99.55%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

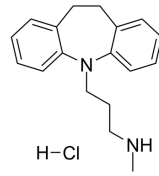


Desipramine hydrochloride

Cat. No.: HY-B1272

Desipramine hydrochloride is an inhibitor of **norepinephrine transporter (NET)**, **5-HT transporter (SERT)** and **dopamine transporter (DAT)** with K_i s of 4, 61 and 78,720 nM, respectively.

Purity: 99.68%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg, 500 mg

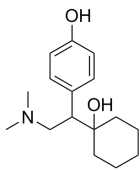


Desvenlafaxine
(O-Desmethylvenlafaxine)

Cat. No.: HY-B0602

Desvenlafaxine is a serotonin (5-HT) and norepinephrine (NE) reuptake inhibitor with K_i of 40.2 nM and 558.4 nM, respectively.

Purity: >98.0%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

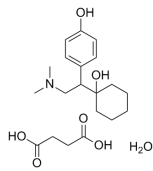


Desvenlafaxine succinate hydrate
(O-Desmethylvenlafaxine succinate hydrate)

Cat. No.: HY-B0602A

Desvenlafaxine succinate hydrate is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI).

Purity: 99.76%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

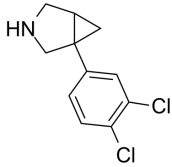


DOV-216,303 Free Base

Cat. No.: HY-18332C

DOV-216,303 (Free Base) is a potent triple **serotonin**, **norepinephrine**, and **dopamine reuptake** inhibitor, with IC_{50} values of 14 nM, 20 nM and 78 nM for hSERT, hNET and hDAT, respectively.

Purity: 98.47%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg

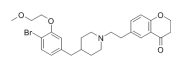


DSP-1053

Cat. No.: HY-111419

DSP-1053 is a potent **Serotonin Transporter (SERT)** ($K_i=1.02$ nM) inhibitor with partial 5-HT1A receptor ($K_i=5.05$ nM) agonistic activity.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

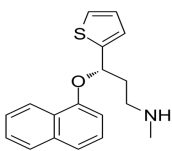


Duloxetine
(S)-Duloxetine; LY248686

Cat. No.: HY-B0161

Duloxetine is a **serotonin-norepinephrine reuptake** inhibitor with a K_i of 4.6 nM, used for treatment of major depressive disorder and generalized anxiety disorder (GAD).

Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

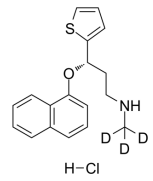


Duloxetine D3 hydrochloride ((S)-Duloxetine D3 hydrochloride; LY248686 D3 hydrochloride)

Cat. No.: HY-B0161AS

Duloxetine D3 hydrochloride ((S)-Duloxetine D3 hydrochloride) is a deuterium labeled Duloxetine hydrochloride.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

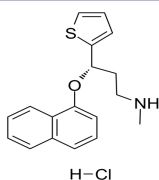


Duloxetine hydrochloride

(S)-Duloxetine hydrochloride; LY-248686 hydrochloride

Cat. No.: HY-B0161A

Duloxetine hydrochloride ((S)-Duloxetine hydrochloride) is a **serotonin-norepinephrine reuptake inhibitor** (SNRI) with a K_i of 4.6 nM, used for treatment of major depressive disorder and generalized anxiety disorder (GAD).



Purity: 99.92%

Clinical Data: Launched

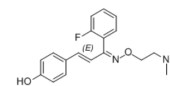
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Eplivanserin mixture

(SR-46349 (mixture))

Cat. No.: HY-10792A

Eplivanserin mixture is a selective **serotonin reuptake inhibitor** and a **5-HT_{2A} receptor antagonist**, extracted from patent WO 2005/002578 A1.



Purity: 99.95%

Clinical Data: No Development Reported

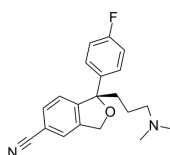
Size: 5 mg, 10 mg, 50 mg, 100 mg

Escitalopram

(S)-Citalopram; S-(+)-Citalopram

Cat. No.: HY-14258

Escitalopram is a selective serotonin reuptake inhibitor (SSRI) with K_i of 0.89 nM. Target: SSRIs
Escitalopram, the S-enantiomer of citalopram, belongs to a class of antidepressant agents known as selective serotonin-reuptake inhibitors (SSRIs).



Purity: >98%

Clinical Data: Launched

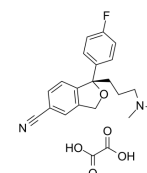
Size: 1 mg, 5 mg

Escitalopram oxalate

(S)-(+)-Citalopram oxalate

Cat. No.: HY-14258A

Escitalopram oxalate ((S)-(+)-Citalopram oxalate) is a selective serotonin reuptake inhibitor (SSRI) with K_i of 0.89 nM.



Purity: 99.98%

Clinical Data: Launched

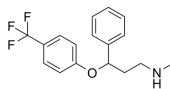
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Fluoxetine

(LY-110140 (free base))

Cat. No.: HY-B0102

Fluoxetine (LY-110140 free base) is a selective serotonin reuptake inhibitor (SSRI) class used for antidepressant research.



Purity: >98%

Clinical Data: Launched

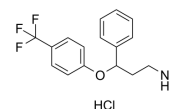
Size: 1 mg, 5 mg

Fluoxetine hydrochloride

(LY 110140)

Cat. No.: HY-B0102A

Fluoxetine hydrochloride (LY 110140) is an antidepressant and a selective **serotonin reuptake inhibitor**.



Purity: 99.84%

Clinical Data: Launched

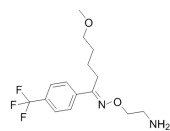
Size: 10 mM × 1 mL, 50 mg, 100 mg, 500 mg

Fluvoxamine

(DU-23000)

Cat. No.: HY-B0103

Fluvoxamine (DU-23000) is an antidepressant which functions pharmacologically as a selective serotonin reuptake inhibitor.



Purity: >98%

Clinical Data: Launched

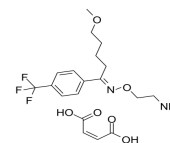
Size: 1 mg, 5 mg

Fluvoxamine maleate

(DU-23000 maleate)

Cat. No.: HY-B0103A

Fluvoxamine maleate (DU-23000 maleate) is an antidepressant which functions pharmacologically as a selective serotonin reuptake inhibitor.



Purity: 99.85%

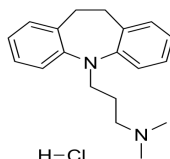
Clinical Data: Launched

Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Imipramine hydrochloride

Cat. No.: HY-B1490

Imipramine hydrochloride inhibits **serotonin transporter** with an IC_{50} value of 32 nM in vitro.



Purity: 99.93%

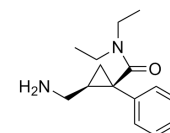
Clinical Data: Launched

Size: 10 mM × 1 mL, 100 mg

Milnacipran

Cat. No.: HY-B0168

Milnacipran is a serotonin-norepinephrine reuptake inhibitor (SNRI) used in the clinical treatment of fibromyalgia.



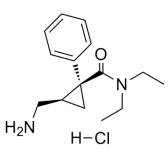
Purity: >98%

Clinical Data: Launched

Size: 1 mg, 5 mg

Milnacipran (1S-cis) hydrochloride
(Levomilnacipran hydrochloride; F-2695 hydrochloride) **Cat. No.:** HY-B0168B

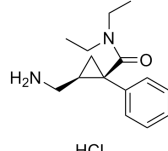
Milnacipran (1S-cis) hydrochloride is a serotonin-norepinephrine reuptake inhibitor (SNRI), used in the clinical treatment of fibromyalgia.



Purity: 99.94%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Milnacipran hydrochloride **Cat. No.:** HY-B0168A

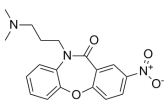
Milnacipran hydrochloride is a serotonin-norepinephrine reuptake inhibitor (SNRI) used in the clinical treatment of fibromyalgia.



Purity: 99.87%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 200 mg

Nitroxazepine
(CIBA 2330Go) **Cat. No.:** HY-101684

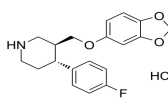
Nitroxazepine is a tricyclic antidepressant (TCA) for the treatment of depression. Nitroxazepine acts as a serotonin-norepinephrine reuptake inhibitor.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Paroxetine hydrochloride
(BRL29060 hydrochloride; BRL29060A) **Cat. No.:** HY-B0492

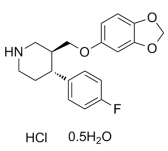
Paroxetine hydrochloride is a potent selective serotonin-reuptake inhibitor, commonly prescribed as an antidepressant and has GRK2 inhibitory ability with IC_{50} of 14 μ M.



Purity: >99.0%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg, 500 mg

Paroxetine hydrochloride hemihydrate (BRL29060 hydrochloride hemihydrate; BRL29060A hemihydrate) **Cat. No.:** HY-B0492A

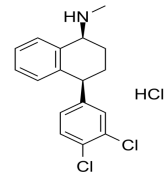
Paroxetine hydrochloride hemihydrate is a potent selective serotonin-reuptake inhibitor, commonly prescribed as an antidepressant and has GRK2 inhibitory ability with IC_{50} of 14 μ M.



Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Sertraline hydrochloride **Cat. No.:** HY-B0176A

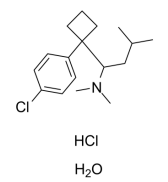
Sertraline hydrochloride is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class. Target: SSRI Sertraline is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class. It was introduced to the market by Pfizer in 1991.



Purity: 99.90%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Sibutramine hydrochloride monohydrate
(BTS 54-524 hydrochloride monohydrate) **Cat. No.:** HY-14470

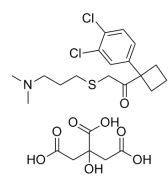
Sibutramine hydrochloride monohydrate is a novel 5-HT (serotonin) and noradrenaline reuptake inhibitor (SNRI). The IC_{50} for Sibutramine block of voltage-gated K^+ channel (K_v)4.3 is 17.3 μ M.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

SPD-473 citrate **Cat. No.:** HY-101612

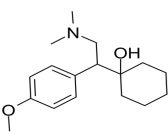
SPD-473 citrate is a serotonin/dopamine/norepinephrine reuptake inhibitor.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Venlafaxine
(Wy 45030) **Cat. No.:** HY-B0196

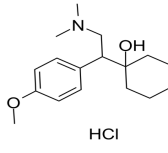
Venlafaxine is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class. Target: SNRI Venlafaxine is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class.



Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Venlafaxine hydrochloride
(Wy 45030 hydrochloride) **Cat. No.:** HY-B0196A

Venlafaxine hydrochloride is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class. Target: SNRI Venlafaxine is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class.



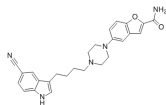
Purity: 99.87%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg

Vilazodone

(EMD 68843; SB659746A)

Cat. No.: HY-14262

Vilazodone (EMD 68843; SB 659746A) is a combined serotonin specific reuptake inhibitor (SSRI) and 5-HT_{1A} receptor partial agonist currently under clinical evaluation for the treatment of major depression.

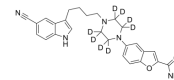


Purity: 99.91%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg

Vilazodone D8

Cat. No.: HY-14261S

Vilazodone D8 is the a deuterium labeled vilazodone, which is a combined serotonin specific reuptake inhibitor (SSRI) and 5-HT_{1A} receptor partial agonist.



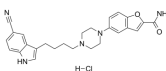
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Vilazodone Hydrochloride

(EMD 68843 Hydrochloride; SB659746A Hydrochloride)

Cat. No.: HY-14261

Vilazodone Hydrochloride (EMD 68843 Hydrochloride) is a serotonin transporter (SER) inhibitor and 5-HT_{1A} receptor partial agonist.



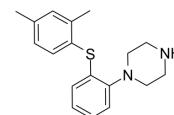
Purity: 99.95%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg

Vortioxetine

(Lu AA 21004)

Cat. No.: HY-15414

Vortioxetine is a inhibitor of 5-HT_{1A}, 5-HT_{1B}, 5-HT_{3A}, 5-HT₇ receptor and SERT, with K_i values of 15 nM, 33 nM, 3.7 nM, 19 nM and 1.6 nM, respectively.



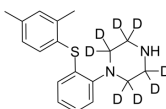
Purity: 98.81%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Vortioxetine D8

(Lu AA 21004 D8)

Cat. No.: HY-15414S

Vortioxetine D8 is a deuterium labeled Vortioxetine. Vortioxetine is an inhibitor of 5-HT_{1A}, 5-HT_{1B}, 5-HT_{3A}, 5-HT₇ receptor and SERT, with K_i values of 15 nM, 33 nM, 3.7 nM, 19 nM and 1.6 nM, respectively.



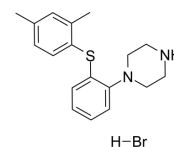
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Vortioxetine hydrobromide

(Lu AA21004 hydrobromide)

Cat. No.: HY-15414A

Vortioxetine hydrobromide is a multimodal serotonergic agent, inhibits 5-HT_{1A}, 5-HT_{1B}, 5-HT_{3A}, 5-HT₇ receptor and SERT with K_i values of 15 nM, 33 nM, 3.7 nM, 19 nM and 1.6 nM, respectively.

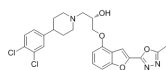


Purity: 99.94%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Wf-516

Cat. No.: HY-19417A

Wf-516 is an inhibitor of 5-HT reuptake, and an antagonist of 5-HT_{1A} and 5-HT_{2A} receptors, with K_i of 5 nM and 40 nM for 5-HT_{1A} receptor and 5-HT_{2A} receptor in humans, respectively, and has potent antidepressant activity.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg